

## TWO SIGNAL ONE POWER PLANE CIRCUIT BOARD

### Abstract of the Disclosure

5 A method of forming a printed circuit board or circuit  
card is provided with a metal layer which serves as a power  
plane sandwiched between a pair of photoimageable dielectric  
layers. Photoformed metal filled vias and photoformed plated  
through holes are in the photopatternable material, and signal  
circuitry is on the surfaces of each of the dielectric  
materials and connected to the vias and plated through holes.  
10 A border may be around the board or card including a metal  
layer terminating in from the edge of one of the dielectric  
layers. A copper foil is provided with clearance holes.  
First and second layers of photoimageable curable dielectric  
material is disposed on opposite sides of the copper which are  
photoimageable material. The patterns are developed on the  
15 first and second layers of the photoimageable material to  
reveal the metal layer through vias. At the clearance holes  
in the copper, through holes are developed where holes were  
patterned in both dielectric layers. Thereafter, the surfaces  
of the photoimageable material, vias and through holes are  
20 metalized by copper plating. This is preferably done by  
protecting the remainder of the circuitry with photoresist and  
utilizing photolithographic techniques. The photoresist is  
thereafter removed, leaving a circuit board or card having  
metalization on both sides, vias extending from both sides to  
25 the copper layer in the center, plated through holes  
connecting the two outer circuitized copper layers.